This document gives pertinent information concerning the reissuance of the VPDES Permit listed below. This permit is being processed as a Minor, Industrial permit. The discharge results from the operation of a common carrier pipeline transporting refined petroleum products. This permit action consists of updating the proposed effluent limits to reflect the current Virginia WQS (effective January 6, 2011) and updating permit language, as appropriate, to reflect current boilerplate. The effluent limitations and special conditions contained in this permit will maintain the Water Quality Standards of 9VAC25-260-00 et seq.

1. Facility Name and Mailing Address: Colonial Pipeline Company – Chantilly Station, 929 Hoods Mill Road, Woodbine, MD 21797
   SIC Code : 4613 – Refined Petroleum Products Pipeline
   Facility Location: 13100 Moore Road, Clifton, VA 22024
   County: Fairfax
   Facility Contact Name: Ms. Angela Kolar
   Telephone Number: (410) 970-2150

2. Permit No.: VA0051683
   Expiration Date of previous permit: June 26, 2011
   Other VPDES Permits associated with this facility: N/A
   Other Permits associated with this facility: Air Registration Number - 73863; Hazardous Waste EPA ID – VA0000707612
   E2/E3/E4 Status: N/A

3. Owner Name: Colonial Pipeline Company
   Owner Contact/Title: Mr. Robert Shenk / Environmental Specialist
   Telephone Number: (410) 970-2126

4. Application Complete Date: January 4, 2011

Permit Drafted By:	Susan Mackert	Date Drafted:	March 18, 2011
Draft Permit Reviewed By:	Alison Thompson	Date Reviewed:	March 23, 2011
Draft Permit Reviewed By:	Bryant Thomas	Date Reviewed:	June 7, 2011
Public Comment Period :	Start Date: April 22, 2011	End Date:	May 23, 2011

5. Receiving Waters Information:

Receiving Stream Name :	UT, Little Rocky Run	Stream Code:	1aXGS
Drainage Area at Outfall:	0.06 square miles	River Mile:	1.19
Stream Basin:	Potomac River	Subbasin:	Potomac River
Section:	7a	Stream Class:	III
Special Standards:	g	Waterbody ID:	VAN-A23R
7Q10 Low Flow:	0 MGD	7Q10 High Flow:	0 MGD
1Q10 Low Flow:	0 MGD	1Q10 High Flow:	0 MGD
Harmonic Mean Flow:	0 MGD	30Q5 Flow:	0 MGD
303(d) Listed:	Receiving Stream - No	30Q10 Flow:	0 MGD
303(d) Listed:	Downstream - Yes		
TMDL Approved:	Receiving Stream - No	Date TMDL Approved:	N/A
TMDL Approved:	Downstream - Yes	Date TMDL Approved:	September 26, 2006 (benthic)
TMDL Approved:	Downstream - Yes	Date TMDL Approved:	November 15, 2006 (*E. coli*)

It is staff's best professional judgement that based on a drainage area of 5 square miles or less, critical flows will be equal to 0.

6. Statutory or Regulatory Basis for Special Conditions and Effluent Limitations:

✓	State Water Control Law		EPA Guidelines
✓	Clean Water Act	✓	Water Quality Standards
✓	VPDES Permit Regulation	✓	Other: 9VAC25-120 (General Permit for Discharges from Petroleum Contaminated Sites)
✓	EPA NPDES Regulation		

7. Licensed Operator Requirements: N/A

8. Reliability Class: N/A

9. Permit Characterization:

✓	Private		Effluent Limited		Possible Interstate Effect
	Federal	✓	Water Quality Limited		Compliance Schedule Required
	State		Toxics Monitoring Program Required		Interim Limits in Permit
	POTW		Pretreatment Program Required		Interim Limits in Other Document
	TMDL				

10. Wastewater Sources and Treatment Description:

Colonial Pipeline is a federally regulated common carrier pipeline transporting refined petroleum products consisting of gasoline, kerosene, and #2 fuel oils. The Chantilly Station serves as a pump station to increase pressure in the pipeline to maintain flow rate. Additionally, the Chantilly Station is a takeoff point for movement of product to the Fairfax Delivery facility. Movement of all petroleum products in and out of the facility is solely by pipeline.

Outfall 001
Flow from the facility's retention pond, which includes discharges from the internal outfalls listed below, discharges via a submerged overflow to a dry ditch leading to the UT to Little Rocky Run.

Outfall 101
All storm water is collected by an underground drainage system and routed to an oil-water separator system for treatment. The storm water then discharges via internal Outfall 101 to the facility's retention pond.

The facility has one – three thousand barrel capacity breakout tank for product storage. Any product that enters the facility's oil-water separator is skimmed off and directed to the station's sump which is ultimately pumped to the breakout tank. The breakout tank is located within a diked area with the dike drain valve closed at all times. In the event of a catastrophic failure of the tank and containment berm, flow would discharge via internal Outfall 101 to the facility's retention pond.

Washdown slab water is an intermittent discharge that is generated when equipment is cleaned (with water) to remove any refined petroleum products. Water from the washdown slab is piped to the oil-water separator system for treatment. The washdown water then discharges via internal Outfall 101 to the facility's retention pond.

Hydrostatic Test Water

Hydrostatic test water is generated periodically during hydrostatic tests of the facility piping, pipelines, and/or tankage. Hydrostatic test water discharges to the facility's retention pond. A discharge from this outfall has not taken place during the current permit cycle.

Necessary treatment of the hydrostatic test water is determined on a case-by-case basis. Hydrostatic test waters (non-chlorinated) from new pipe or interiorly cleaned, sandblasted tanks typically does not need additional treatment other than what it receives after being discharged to the retention pond. Treatment is deemed necessary when water from a chlorinated source, and/or when hydrostatic testing used pipe or non-interiorly cleaned tanks. Colonial Pipeline typically uses carbon treatment in such cases. Carbon vessels are sized based on expected contaminant concentration levels, discharge rate needed, and volume.

Hydrostatic testing may be conducted using potable water from the local municipality or non-chlorinated water from the facility's on-site well.

Hydrostatic test water discharges were previously permitted via internal Outfall 102. With this reissuance, Outfall 102 has been removed and all hydrostatic test water requirements are found within a special condition in Section 22 of the Fact Sheet. At times hydrostatic test volumes can be extremely small (500 gallons or less) making it problematic for the facility to collect a sample from the initial discharge and a second sample during the discharge of the final 20% by volume or last two feet of hydrostatic test water. As such, with this reissuance monitoring requirements for hydrostatic testing will be divided into discharges of 500 gallons or less and discharges of greater than 500 gallons.

Discharges of 500 gallons or less shall be sampled once per discharge. Sampling shall be required for characterization of the "first flush". Samples shall be collected from the discharge point at the appropriate above ground storage tank or piping. Discharges greater than 500 gallons shall require two samples per hydrostatic tank or pipeline test. The first sample shall be collected during the initial discharge or be a representative sample collected and analyzed prior to the discharge. The second sample shall be collected during the discharge of the final 20% by volume or last two feet of hydrostatic test water. Samples shall be collected from the discharge point at the appropriate above ground storage tank or piping. All discharges shall be limited as defined in Section 22 of the Fact Sheet and results submitted to DEQ-NRO on the provided hydrostatic testing report form no later than the 10th day of the month after monitoring takes place.

See Attachment 1 for the NPDES Permit Rating Worksheet. See Section 28 of the Fact Sheet for additional discussion.

See Attachment 2 for a facility schematic/diagram.

TABLE 1 – Outfall Description

Outfall Number	**Discharge Sources**	**Treatment**	**Average Flow**	**Outfall Latitude and Longitude**
001	Industrial Storm Water Industrial Process Water	Sedimentation	0.079 MGD*	38° 50' 6? N 77° 24' 0.27? W
101	Industrial Storm Water Washdown Slab Water Breakout Tank / Berm Discharge	Oil-Water Separator	0.003 MGD	38° 50' 6? N 77° 24' 0.27? W
102	Removed with this reissuance. See Section 10 and Section 22 of the Fact Sheet for discussion.			

* Includes 0.068 MGD for hydrostatic testing conducted on a random, infrequent basis.

See Attachment 3 for (Manassas, DEQ #205C) topographic map.

11. Sludge Treatment and Disposal Methods:

Colonial Pipeline is a common carrier pipeline transporting refined petroleum products. The facility does not produce sewage sludge and does not treat domestic sewage.

12. Discharges, Intakes, Monitoring Stations, Other Items in Vicinity of Discharge: The facilities and monitoring stations listed below either discharge to or are located within the following waterbody: VAN-A23R

TABLE 2	
1aLIP001.00	DEQ monitoring station located approximately 3.3 miles downstream of the discharge location on Little Rocky Run at the Route 658 (Compton Road) bridge crossing.
VA0024988	Upper Occoquan Service Authority (Bull Run, UT)
VAG110063	Virginia Concrete Company, Incorporated - Centreville (Bull Run, UT)
VAG406111	James Farr Residence (Pope's Head Creek)
VAG406252	Tony Gibson Residence (Pope's Head Creek, UT)
VAR051566	Rolling Frito Lay Sales – Manassas Bin (Bull Run, UT)
VAR051723	Upper Occoquan Service Authority (Bull Run, UT)

13. Material Storage: Please see Attachment 4 for a complete list of significant materials stored. All materials are stored within the facility's warehouse or an enclosed storage shed.

14. Site Inspection: Performed by Susan Mackert on March 11, 2011. The site visit confirms that the application package received on December 16, 2010, is accurate and representative of actual site conditions. The site visit memo can be found as Attachment 5.

15. Receiving Stream Water Quality and Water Quality Standards:

a) Ambient Water Quality Data

The nearest Department of Environmental Quality monitoring station, 1aLIP001.00 on Little Rocky Run, is located in segment VAN-A23R_LIP01A06 approximately 3.3 miles downstream from the location of Outfall 001. This segment begins at the confluence with Willow Springs and continues downstream until the confluence with Bull Run. The receiving stream, UT to Little Rocky Run, is not listed on the current 303(d) list.

The 2010 Virginia Water Quality Assessment 305(b)/303(d) Integrated Report (IR) gives an impaired classification for the following downstream locations:

- Recreation Use

Little Rocky Run: Sufficient excursions from the maximum *E. coli* bacteria criterion (4 of 22 samples – 18.2%) were recorded at DEQ's ambient water quality monitoring station (1aLIP001.00) at the Route 658 bridge crossing (Compton Road) to assess this stream segment as not supporting of the recreation use goal for the 2010 water quality assessment.

- Aquatic Life Use

Little Rocky Run: A total of two biological monitoring events in 2007 resulted in a VSCI score which indicates an impaired macroinvertebrate community.

Bull Run: Two biological monitoring events in 2005 (1aBUL009.61), two biological monitoring events in 2004, and one biological monitoring event in 2005 (1aBUL010.28), as well as two biological monitoring events in 2005 (1aBUL011.12) each resulted in a VSCI score which indicates an impaired macroinvertebrate community.

- Fish Consumption Use

Bull Run: The fish consumption use is categorized as impaired due to a Virginia Department of Health, Division of Health Hazards Control, PCB fish consumption advisory. The advisory, dated December 13, 2004, and modified July 27, 2005, limits consumption of carp and channel catfish to no more than two meals per month. The affected area includes Bull Run near Manassas Park from the I-66 bridge downstream approximately fourteen miles to the Route 612 (Yates Ford Road) bridge. Additionally, fish tissue data revealed excursions of the water quality criterion based tissue value (TV) of 20 ppb for polychlorinated biphenyls (PCBs) in three species of fish (carp, channel catfish, and flathead catfish) in 2004 at monitoring station 1aBUL010.28.

The following Total Maximum Daily Load (TMDL) has been established.

- Bull Run Benthic TMDL – Approved by EPA September 26, 2006
- Bull Run Bacteria TMDL (*E. coli*) – Approved by EPA November 15, 2006

The following Total Maximum Daily Load (TMDL) schedule has been established.

- Bull Run PCB – 2016
- Bull Run Aquatic Life Use – 2022

The bacteria TMDL for Bull Run considered all upstream facilities. Because this industrial facility is not expected to discharge the contaminant of concern (*E. coli*) it did not receive a WLA in the TMDL.

The benthic TMDL for Bull Run inadvertently omitted a Total Suspended Solids (TSS) WLA for the facility. The TMDL did include a specific growth allocation for future growth and expansion of point sources. Thus, the facility is being given a WLA of 1.5 tons/year. This WLA was calculated using their permitted TSS concentration of 60 mg/L and an average daily flow of 0.01596 MGD derived from Discharge Monitoring Report (DMR) form data.

The complete planning statement is located within the permit reissuance file.

b) Receiving Stream Water Quality Criteria

Part IX of 9VAC25-260(360-550) designates classes and special standards applicable to defined Virginia river basins and sections. The receiving stream, UT to Little Rocky Run, is located within Section 7a of the Potomac River Basin, and classified as a Class III water.

At all times, Class III waters must achieve a dissolved oxygen (D.O.) of 4.0 mg/L or greater, a daily average D.O. of 5.0 mg/L or greater, a temperature that does not exceed 32°C, and maintain a pH of 6.0-9.0 standard units (S.U.).

Attachment 6 details other water quality criteria applicable to the receiving stream.

Ammonia:
The 7Q10 and 1Q10 of the receiving stream are 0.0 MGD. In cases such as this, effluent pH and temperature data may be used to establish the ammonia water quality standard. The 90th percentile value of the effluent pH (7.9 S.U) and a default temperature value of 25°C were used to calculate the ammonia water quality standards. The ammonia water quality standards calculations are shown in Attachment 6.

Ammonia is not a parameter of concern due to the fact the discharge is industrial in nature. As such, there is no reasonable potential to exceed the ammonia criteria. It is staff's best professional judgment that ammonia limits need not be developed for this discharge.

Metals Criteria:
The Water Quality Criteria for some metals are dependent on the receiving stream's hardness (expressed as mg/L calcium carbonate). When the 7Q10 of the receiving stream is zero and no ambient data is available, effluent data for hardness can be used to determine the metals criteria. Because there is no hardness data for this facility, staff guidance suggests using a default hardness value of 50 mg/L $CaCO_3$ for streams east of the Blue Ridge. The hardness-dependent metals criteria in Attachment 6 are based on this default value.

c) Receiving Stream Special Standards

The State Water Control Board's Water Quality Standards, River Basin Section Tables (9VAC25-260-360, 370 and 380) designates the river basins, sections, classes, and special standards for surface waters of the Commonwealth of Virginia. The receiving stream, UT to Little Rocky Run, is located within Section 7a of the Potomac River Basin. This section has been designated with a special standard of "g".

Special Standard "g" refers to the Occoquan Watershed policy (9VAC25-410). The regulation sets stringent treatment and discharge requirements in order to improve and protect water quality, particularly since the waters are an important water supply for Northern Virginia. The regulation generally prohibits new STPs and only allows minor industrial discharges. Special standards are not applied since this is an existing industrial discharge which does not contain the pollutants of concern in appreciable amounts.

d) Threatened or Endangered Species

The Virginia DGIF Fish and Wildlife Information System Database was searched on February 7, 2011, for records to determine if there are threatened or endangered species in the vicinity of the discharge. The following threatened or endangered species were identified within a 2 mile radius of the discharge: Brook Floater, Wood Turtle, Upland Sandpiper, Loggerhead Shrike, Henslow's Sparrow, Appalachian Grizzled Skipper, Bald Eagle, and Migrant Loggerhead Shrike. The limits proposed in this draft permit are protective of the Virginia Water Quality Standards and therefore, protect the threatened and endangered species found near the discharge.

16. Antidegradation (9VAC25-260-30):

All state surface waters are provided one of three levels of antidegradation protection. For Tier 1 or existing use protection, existing uses of the water body and the water quality to protect these uses must be maintained. Tier 2 water bodies have water quality that is better than the water quality standards. Significant lowering of the water quality of Tier 2 waters is not allowed without an evaluation of the economic and social impacts. Tier 3 water bodies are exceptional waters and are so designated by regulatory amendment. The antidegradation policy prohibits new or expanded discharges into exceptional waters.

The receiving stream has been classified as Tier 1 based on the stream having a 7Q10 and 1Q10 of zero. At times the stream is comprised of only storm water from this facility. Permit limits proposed have been established by determining wasteload allocations which will result in attaining and/or maintaining all water quality criteria which apply to the receiving stream, including narrative criteria. These wasteload allocations will provide for the protection and maintenance of all existing uses.

17. Effluent Screening, Wasteload Allocation, and Effluent Limitation Development:

To determine water quality-based effluent limitations for a discharge, the suitability of data must first be determined. Data is suitable for analysis if one or more representative data points is equal to or above the quantification level ("QL") and the data represent the exact pollutant being evaluated.

Next, the appropriate Water Quality Standards (WQS) are determined for the pollutants in the effluent. Then, the Wasteload Allocations (WLA) are calculated. In this case since the critical flows 7Q10 and 1Q10 have been determined to be zero, the WLA's are equal to the WQS. The WLA values are then compared with available effluent data to determine the need for effluent limitations. Effluent limitations are needed if the 97th percentile of the daily effluent concentration values is greater than the acute wasteload allocation or if the 97th percentile of the four-day average effluent concentration values is greater than the chronic wasteload allocation. Effluent limitations are based on the most limiting WLA, the required sampling frequency, and statistical characteristics of the effluent data.

a) Effluent Screening:

Effluent data obtained from Discharge Monitoring Reports (DMR) and the permit application has been reviewed and determined to be suitable for evaluation. Staff derived wasteload allocations where parameters are reasonably expected to be present in an effluent discharged (e.g., BTEX when the facility handles petroleum products) and where effluent data indicate the pollutant is present in the discharge above quantifiable levels. With regard to the discharge, total petroleum hydrocarbons, benzene, toluene, ethylbenzene, xylenes, and naphthalene are potential pollutants.

b) Mixing Zones and Wasteload Allocations (WLAs):

Wasteload allocations (WLAs) are calculated for those parameters in the effluent with the reasonable potential to cause an exceedance of water quality criteria. The basic calculation for establishing a WLA is the steady state complete mix equation:

$$WLA = \frac{C_o [Q_e + (f) (Q_s)] - [(C_s) (f) (Q_s)]}{Q_e}$$

Where:
- WLA = Wasteload allocation
- C_o = In-stream water quality criteria
- Q_e = Design flow
- Q_s = Critical receiving stream flow (1Q10 for acute aquatic life criteria; 7Q10 for chronic aquatic life criteria; harmonic mean for carcinogen-human health criteria; 30Q10 for ammonia criteria; and 30Q5 for non-carcinogen human health criteria)
- f = Decimal fraction of critical flow
- C_s = Mean background concentration of parameter in the receiving stream.

The water segment receiving the discharge via Outfall 001 is considered to have a 7Q10 and 1Q10 of 0.0 MGD. As such, there is no mixing zone and the WLA is equal to the C_o.

c) Effluent Limitations Toxic Pollutants

9VAC25-31-220.D. requires limits be imposed where a discharge has a reasonable potential to cause or contribute to an in-stream excursion of water quality criteria. Those parameters with WLAs that are near effluent concentrations are evaluated for limits.

The VPDES Permit Regulation at 9VAC25-31-230.D. requires that monthly and weekly average limitations be imposed for continuous discharges from POTWs and monthly average and daily maximum limitations be imposed for all other continuous non-POTW discharges.

1) Hydrostatic Test Water

The following discussions on the development of BTEX and naphthalene limits are taken from Regulation 9VAC25-120-10 et seq., General Virginia Pollution Discharge Elimination System (VPDES) Permit Regulation for Discharges from Petroleum Contaminated Sites and Hydrostatic Tests.

Benzene :

The EPA criteria document for benzene (EPA 440/5-80-018, EPA 1980a) states that benzene may be acutely toxic to freshwater organisms at concentrations as low as 5,300 µg/L. This is an LC50 value for rainbow trout. The document also states that acute toxicity would occur at lower concentrations among more sensitive species. No data were available concerning the chronic toxicity of benzene to sensitive freshwater organisms. The derivation of a "safe level" for benzene was based on the 5,300 µg/L LC50. This value was divided by 10 in order to approximate a level which would not be expected to cause acute toxicity. (The use of an application factor of 10 was recommended by the National Academy of Sciences in the EPA's publication "Water Quality Criteria, 1972" (EPA/R3/73-033). This use of application factors when setting water quality criteria is still considered valid in situations where data are not sufficient to develop criteria according to more recent guidance.) The resulting "non-lethal" concentration of 530 µg/L was divided by an assumed acute to chronic ratio of 10 to arrive at the water quality-based permit limitation of 53 µg/L. When actual data are not available, EPA, in the Technical Support Document for Water Quality-based Toxics Control (EPA/505/2-90-001) recommends using an acute to chronic ratio of 10). The EPA model permit's technology-based 50 µg/L value is more protective, therefore, it was chosen over the 53 µg/L water quality-based concentration. An instantaneous maximum limit of 50 µg/L is proposed with this reissuance. Sampling shall be conducted in accordance with Section 22.d of the Fact Sheet.

Ethylbenzene:

The EPA criteria document for ethylbenzene (EPA 440/5-80-048, EPA 1980b) gives an acute effects concentration of 32,000 µg/L. This is an LC50 for bluegill sunfish. Acute toxicity may occur at lower concentrations if more sensitive species were tested. No definitive data are available on the chronic toxicity of ethylbenzene to freshwater organisms. In order to derive an acceptable level of ethylbenzene for the protection of freshwater organisms the acute value of 32,000 µg/L was divided by 100, using the same assumptions employed above for benzene. The resulting value of 320 µg/L is a calculated chronic toxicity concentration for ethylbenzene. An instantaneous maximum limit of 320 µg/L is proposed with this reissuance. Sampling shall be conducted in accordance with Section 22.d of the Fact Sheet.

Toluene:

The EPA criteria document for toluene (EPA 440/5-80-075, EPA 1980c) states that acute toxicity to freshwater organisms occurs at 17,500 µg/L and would occur at lower concentrations if more sensitive organisms were tested. No data are available on the chronic toxicity of toluene to freshwater species. Based on the available data for acute toxicity and dividing by the application factor of 100, the proposed effluent limit for toluene discharged to freshwater is 175 µg/L. An instantaneous maximum limit of 175 µg/L is proposed with this reissuance. Sampling shall be conducted in accordance with Section 22.d of the Fact Sheet.

Xylene:

Xylene is not a 307(a) priority pollutant, therefore no criteria document exists for this compound. There are three isomers of xylene (ortho, meta and para) and the general permit limits are established so that the sum of all xylenes is considered in evaluating compliance. The proposed effluent limits are based on a search of the EPA's ECOTOX data base. According to ECOTOX, the lowest freshwater LC50 for xylenes is 3,300 µg/L reported for rainbow trout (Mayer and Ellersieck 1986). Based on the rationale presented earlier for other compounds, this acutely toxic concentration was divided by 10 to account for species that were not tested but which may be more sensitive than rainbow trout. Then, in order to find a concentration that is expected to be safe over chronic exposures, an additional safety factor of 10 was applied to arrive at the proposed effluent limitation of 33 µg/L

total xylenes. An instantaneous maximum limit of 33 µg/L is proposed with this reissuance. Sampling shall be conducted in accordance with Section 22.d of the Fact Sheet.

Naphthalene:

The EPA criteria document for naphthalene (EPA 440/5-80-059) gives a chronic effect concentration of 620 µg/L with fathead minnows, but it states that effects would occur at lower concentrations if more sensitive freshwater organisms were tested. According to the ECOTOX DATABASE, naphthalene at a concentration of 1,000 µg/L was lethal to 50% of the water fleas (Daphnia pulex) tested (Truco et al. 1983). DeGaere and associates (1982) tested the effects of naphthalene on Rainbow Trout and reported an LC50 concentration of 1600 µg/l. Based upon these more recent studies, it is recommended that the effluent limit for naphthalene in freshwater be set at 10 µg/L. An instantaneous maximum limit of 10 µg/L is proposed with this reissuance. Sampling shall be conducted in accordance with Section 22.d of the Fact Sheet.

Total Residual Chlorine:

Total Residual Chlorine limits are to be considered for hydrostatic test waters. Potable water from the local municipality may utilized for hydrostatic testing. Potable water contains measurable amounts of chlorine (1.0-3.0 mg/L). TRC limitations are established to prevent impacts (acute and chronic) to aquatic organisms. The TRC limitation is only applicable if the water used in the test has been chlorinated. An instantaneous maximum limit of 0.016 mg/L is proposed to continue with this reissuance based on the chronic aquatic life criterion in Virginia's water quality standards and the WLA derivation in Attachment 7. Sampling shall be conducted in accordance with Section 22.d of the Fact Sheet.

d) Effluent Limitations and Monitoring - Conventional and Non-Conventional Pollutants

1) Outfall 001 – Industrial Process Water and Industrial Storm Water

Total Suspended Solids (TSS):

The existing TSS limit of 60 mg/L shall be carried forward with this permit reissuance. The limit is included with the permit to ensure proper operation and maintenance of the storm water retention pond. The limit was derived from requirements at other industrial activities providing sedimentation of storm water runoff. The annual monitoring frequency (1/YR) for TSS shall be carried forward with this reissuance based on the compliance history with the effluent limitations.

pH:

pH limitations are set at the water quality criteria. The annual monitoring frequency (1/YR) for pH shall be carried forward with this reissuance based on the compliance history with the effluent limitations.

2) Outfall 101 – Oil-Water Separator

Total Petroleum Hydrocarbons (TPH):

The existing TPH limit of 15 mg/L shall be carried forward with this permit reissuance. The limit is based on the ability of simple oil-water separator technology to recover free product from water. Wastewater discharged without a visible sheen is generally expected to meet this effluent limitation. The annual monitoring frequency (1/YR) for TPH shall be carried forward with this reissuance based on the compliance history with the effluent limitations.

pH:

pH limitations are set at the water quality criteria. The annual monitoring frequency (1/YR) for pH shall be carried forward with this reissuance based on the compliance history with the effluent limitations

3) Hydrostatic Test Water

Total Petroleum Hydrocarbons (TPH):

The existing TPH limit of 15 mg/L shall be carried forward with this permit reissuance. The limit is based on the ability of simple oil-water separator technology to recover free product from water. Wastewater discharged without a visible sheen is generally expected to meet this effluent limitation. Sampling shall be conducted in accordance with Section 22.d of the Fact Sheet.

Total Suspended Solids (TSS):

Monitoring for TSS shall be carried forward with this permit reissuance to maintain consistency with the General Virginia Pollution Discharge Elimination System (VPDES) Permit Regulation for Discharges from Petroleum Contaminated Sites and Hydrostatic Tests. Sampling shall be conducted in accordance with Section 22.d of the Fact Sheet.

pH:

pH limitations are set at the water quality criteria. Sampling shall be conducted in accordance with Section 22.d of the Fact Sheet.

Total Organic Carbon (TOC):

Monitoring for TOC shall be carried forward with this permit reissuance to ensure that the effluent is not contaminated with non-petroleum organic substances. It is believed that TOC concentrations in this type of effluent are low. If sampling indicates high levels of TOC, the permit may be modified at a later time to include a TOC limit. Sampling shall be conducted in accordance with Section 22.d of the Fact Sheet

e) Effluent Limitations and Monitoring Summary.

The effluent limitations are presented in the following table and in Fact Sheet Section 22.d (Hydrostatic Test Waters). Limits were established for Total Suspended Solids, pH, Total Residual Chlorine, Total Petroleum Hydrocarbons, BTEX, and Naphthalene.

The limits for BTEX and Naphthalene are in accordance with 9VAC 25-120, General VPDES Permit for Discharges from Petroleum Contaminated Sites.

The limits for Total Suspended Solids are based on Best Professional Judgement.

Sample Type and Frequency are in accordance with the recommendations in the VPDES Permit Manual.

18. Antibacksliding:

All limits in this permit are at least as stringent as those previously established. Backsliding does not apply to this reissuance.

19a. Effluent Limitations/Monitoring Requirements: Outfall 001 (Industrial Process Water and Industrial Storm Water)

Average flow is 0.079 MGD (includes 0.068 MGD for hydrostatic testing conducted on a random, infrequent basis)
Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date.

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	NA	NL	NA	NA	NL	1/YR*	Estimate
pH	2	NA	NA	6.0 S.U.	9.0 S.U.	1/YR*	Grab
Total Suspended Solids (TSS)	1	NA	NA	NA	60 mg/L	1/YR*	Grab

The basis for the limitations codes are:
1. Best Professional Judgement
2. Water Quality Standards

MGD = Million gallons per day.
NA = Not applicable.
NL = No limit; monitor and report.
S.U. = Standard units.
1/YR = Once every year.

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.
Grab = An individual sample collected over a period of time not to exceed 15-minutes.

* The annual monitoring period shall be January 1 – December 31. The monitoring data shall be submitted no later than the 10th day of the month following the monitoring period (January 10).

19b. Effluent Limitations/Monitoring Requirements: Outfall 101 (Oil-Water Separator)

Average flow is 0.003 MGD.
Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date.

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	NA	NL	NA	N/A	NL	Continuous	Estimate
pH	2	NL	NA	6.0 S.U.	9.0 S.U.	1/YR**	Grab
Total Petroleum Hydrocarbons*	1	NA	NA	NA	15 mg/L	1/YR**	Grab

The basis for the limitations codes are:
1. Best Professional Judgement
2. Water Quality Standards

MGD = Million gallons per day.
NA = Not applicable.
NL = No limit; monitor and report.
S.U. = Standard units.
1/YR = Once every year.

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.
Grab = An individual sample collected over a period of time not to exceed 15-minutes.

*Total Petroleum Hydrocarbons (TPH) is the sum of individual gasoline range organics and diesel range organics or TPH-GRO and TPH-DRO to be measured by EPA SW 846 Method 8015C (2007) for gasoline and diesel range organics, or by EPA SW 846 Methods 8260B and 8270D. If the combination of Methods 8260B and 8270D is used, the lab must report the total or gasoline range organics, diesel range organics, and polynuclear aromatic hydrocarbons.

** The annual monitoring period shall be January 1 – December 31. The monitoring data shall be submitted no later than the 10th day of the month following the monitoring period (January 10).

Other Permit Requirements:

a) Part I.B. of the permit contains quantification levels and compliance reporting instructions. 9VAC25-31-190.L.4.c. requires an arithmetic mean for measurement averaging and 9VAC25-31-220.D. requires limits be imposed where a discharge has a reasonable potential to cause or contribute to an in-stream excursion of water quality criteria. Specific analytical methodologies for toxics are listed in this permit section as well as quantification levels (QLs) necessary to demonstrate compliance with applicable permit limitations or for use in future evaluations to determine if the pollutant has reasonable potential to cause or contribute to a violation. Required averaging methodologies are also specified.

21. PCB Monitoring:

The segment of Bull Run that receives discharge from Little Rocky Run is listed with a PCB impairment. A PCB TMDL must be developed for Bull Run by 2016. Because this industrial facility discharges to an unnamed tributary to Little Rocky Run, planning staff initially requested that low level PCB sampling be implemented with this reissuance.

Colonial Pipeline previously performed a company-wide PCB assessment. According to documentation from Colonial Pipeline which can be found within the reissuance file, the Chantilly Station facility did have PCB oil filled equipment on site. However, all PCB equipment and/or oil was removed from the facility in 1988. Additionally, the facility does not receive storm water runoff from the adjacent substation.

The adjacent substation, Dominion – Centreville, was built in 1963. Dominion completed a PCB elimination program in the early to mid 1980s. All PCB equipment was identified and either retro filled to reduce PCB concentrations or removed. All large PCB equipment has been removed from this particular substation. There are no records of spills at this location dating back to 1980. Earlier records are not available.

Based on the information provided by both Colonial Pipeline and Dominion, it is staff's best professional judgement that PCB monitoring is not warranted for this facility.

22. Facility Response Plan:

9VAC25-91-10 et seq. (Facility and Above Ground Storage Tank Regulations) requires pipelines to submit an oil discharge contingency plan (Facility Response Plan) to the Office of Spill Response and Remediation for review. The Facility Response Plan describes actions that the pipeline will take to respond to a spill. The regulation requires an updated plan be submitted every five years unless significant changes, which are defined within the regulation, occur sooner. Colonial Pipeline's plan for their Northeast District was reviewed and approved in 2010.

23. Other Special Conditions:

a) O&M Manual Requirement. Required by VPDES Permit Regulation, 9VAC25-31-190.E. The permittee shall submit for approval an Operations and Maintenance (O&M) Manual or a statement confirming the accuracy and completeness of the current O&M Manual to the Department of Environmental Quality, Northern Regional Office (DEQ-NRO) no later than September 26, 2011. Future changes to the facility must be addressed by the submittal of a revised O&M Manual within 90 days of the changes. Non-compliance with the O&M Manual shall be deemed a violation of the permit.

b) Notification Levels. The permittee shall notify the Department as soon as they know or have reason to believe:

a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:

(1) One hundred micrograms per liter;

(2) Two hundred micrograms per liter for acrolein and acrylonitrile; five hundred micrograms per liter for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter for antimony;

(3) Five times the maximum concentration value reported for that pollutant in the permit

application; or

(4) The level established by the Board.

b. That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:

(1) Five hundred micrograms per liter;

(2) One milligram per liter for antimony;

(3) Ten times the maximum concentration value reported for that pollutant in the permit application; or

(4) The level established by the Board.

c) Materials Handling/Storage. 9VAC25-31-50 A prohibits the discharge of any wastes into State waters unless authorized by permit. Code of Virginia §62.1-44.16 and §62.1-44.17 authorize the Board to regulate the discharge of industrial waste or other waste.

d) Hydrostatic Testing. The permittee shall obtain approval from the DEQ Northern Regional Office forty-eight (48) hours in advance of any discharge resulting from hydrostatic testing. The conditions of approval shall be contingent on the volume and duration of the proposed discharge, and the nature of the residual product.

Discharges of 500 gallons or less shall be sampled once per discharge (1/DIS). Sampling shall be required for characterization of the "first flush". Discharges greater than 500 gallons shall require two samples per discharge (2/DIS). The first sample shall be collected during the initial discharge or be a representative sample collected and analyzed prior to the discharge. The second sample shall be collected during the discharge of the final 20% by volume or last two feet of hydrostatic test water.

Regardless of discharge volume all samples shall be collected from the discharge point at the appropriate above ground storage tank or piping. All discharges shall be monitored and limited as specified below. Results shall be submitted to DEQ-NRO on the provided hydrostatic testing report form no later than the 10th day of the month after monitoring takes place. The hydrostatic testing report form contains all reporting requirements.

Parameter	**Maximum Limitation**
Flow	NL (MGD)
pH	6.0 S.U. minimum; 9.0 S.U. maximum
Total Petroleum Hydrocarbons (TPH)	15 mg/L
Benzene	50 µg/L
Toluene	175 µg/L
Ethylbenzene	320 µg/L
Total Xylenes	33 µg/L
Naphthalene	10 µg/L
Total Residual Chlorine (TRC)	0.016 mg/L
Total Organic Carbon (TOC)	NL (mg/L)
Total Suspended Solids (TSS)	NL (mg/L)

e) Water Quality Criteria Reopener. The VPDES Permit Regulation at 9VAC25-31-220 D. requires establishment of effluent limitations to ensure attainment/maintenance of receiving stream water quality criteria. Should effluent monitoring indicate the need for any water quality-based limitations, this permit may be modified or alternatively revoked and reissued to incorporate appropriate limitations.

f) No Discharge of Detergents, Surfactants, or Solvents to the Oil/Water Separators. This special condition is necessary to ensure that the oil/water separators' performance is not impacted by compounds designed to emulsify oil. Detergents, surfactants, and some other solvents will prohibit oil recovery by physical means.

Permit Section Part II. Part II of the permit contains standard conditions that appear in all VPDES Permits. In general, these standard conditions address the responsibilities of the permittee, reporting requirements, testing procedures and records retention.

24. Changes to the Permit from the Previously Issued Permit:

a) Special Conditions:
1. The hydrostatic testing special condition was modified to incorporate monitoring and limitation requirements previously found under Outfall 102.

b) Monitoring and Effluent Limitations:
1. Outfall 102 was removed with this reissuance with all hydrostatic testing monitoring and limitation requirements placed within a special condition.
2. The limit for Total Xylenes was reduced from 82 µg/L to 33 µg/L in accordance with 9VAC25-120, General VPDES Permit for Discharges from Petroleum Contaminated Sites.
3. The limit for Naphthalene was reduced from 62 µg/L to 10 µg/L in accordance with 9VAC25-120, General VPDES Permit for Discharges from Petroleum Contaminated Sites.
4. A TSS WLA of 1.5 tons/year has been assigned to the facility with this reissuance.

25. Variances/Alternate Limits or Conditions: None

26. Public Notice Information:

First Public Notice Date: April 21, 2011 Second Public Notice Date: April 28, 2011

Public Notice Information is required by 9VAC25-31-280 B. All pertinent information is on file and may be inspected, and copied by contacting the: DEQ Northern Regional Office, 13901 Crown Court, Woodbridge, VA 22193, Telephone No. (703) 583-3853, susan.mackert@deq.virginia.gov. See Attachment 7 for a copy of the public notice document.

Persons may comment in writing or by email to the DEQ on the proposed permit action, and may request a public hearing, during the comment period. Comments shall include the name, address, and telephone number of the writer and of all persons represented by the commenter/requester, and shall contain a complete, concise statement of the factual basis for comments. Only those comments received within this period will be considered. The DEQ may decide to hold a public hearing, including another comment period, if public response is significant and there are substantial, disputed issues relevant to the permit. Requests for public hearings shall state 1) the reason why a hearing is requested; 2) a brief, informal statement regarding the nature and extent of the interest of the requester or of those represented by the requester, including how and to what extent such interest would be directly and adversely affected by the permit; and 3) specific references, where possible, to terms and conditions of the permit with suggested revisions. Following the comment period, the Board will make a determination regarding the proposed permit action. This determination will become effective, unless the DEQ grants a public hearing. Due notice of any public hearing will be given. The public may request an electronic copy of the draft permit and fact sheet or review the draft permit and application at the DEQ Northern Regional Office by appointment.

27. 303 (d) Listed Stream Segments and Total Max. Daily Loads (TMDL):
The receiving stream, UT to Little Rocky Run, is not listed on the current 303(d) list. The 2010 Virginia Water Quality Assessment 305(b)/303(d) Integrated Report (IR) gives an impaired classification for the following downstream segment: VAN-A23R_LIP01A06. The Bull Run Bacteria TMDL (*E. coli*) was approved by EPA November 15, 2006. The bacteria TMDL for Bull Run considered all upstream facilities. Because Colonial Pipeline – Chantilly Station was not expected to discharge the contaminant of concern (*E. coli*) it did not receive a WLA in the TMDL.

The benthic TMDL for Bull Run inadvertently omitted a Total Suspended Solids (TSS) WLA for the facility. The TMDL did include a specific growth allocation for future growth and expansion of point sources. Thus, the facility is being given a WLA of 1.5 tons/year. This WLA was calculated using their permitted TSS concentration of 60 mg/L and an average daily flow of 0.01596 MGD derived from DMR data.

TMDL Reopener: This special condition is to allow the permit to reopened if necessary to bring it in compliance with any applicable TMDL that may be developed and approved for the receiving stream.

28. Additional Comments:
Previous Board Action(s): None

Staff Comments: Colonial Pipeline requested a reduction in the number of grab samples associated with hydrostatic testing when volumes are extremely small (500 gallons or less) as it is problematic for the facility to collect a sample from the initial discharge and a second sample during the discharge of the final 20% by volume or last two feet of hydrostatic test water. It is staff's best professional judgement that with this reissuance the monitoring requirements for hydrostatic testing be divided into discharges of 500 gallons or less and discharges of greater than 500 gallons. Please see Section 10 and Section 22.d of the Fact Sheet for additional discussion.

Staff Comments: In response to comments received from Fairfax Water, staff adjusted the NPDES Permit Rating Worksheet (Attachment 1) to reflect a public drinking water supply located within 50 miles downstream of the effluent discharge. Because the facility's SIC Code (4613 - Refined Petroleum Products Pipeline) was not listed staff applied SIC Code 4612 (Crude Petroleum Pipelines) which would reflect a worst case scenario. Applying a total points factor of 20 from this toxicity group has no significant change on the facility's industrial rating. The facility is still considered an industrial minor and warrants no change to the permit.

Public Comment: Comments were received on May 25, 2011, from Fairfax Water with staff response provided on June 21, 2011.

EPA Checklist: The checklist can be found in Attachment 8.

Fact Sheet Attachments – Table of Contents

Colonial Pipeline – Chantilly Station
VA0051683

2011 Reissuance

Attachment 1	NPDES Permit Rating Worksheet
Attachment 2	Facility Flow Diagram
Attachment 3	Topographic Map
Attachment 4	Material Storage
Attachment 5	Site Visit Memorandum
Attachment 6	Wasteload Allocation Analysis – Limit Derivation
Attachment 7	Public Notice
Attachment 8	EPA Checklist

NPDES PERMIT RATING WORK SHEET

[X] Regular Addition
[ ] Discretionary Addition
[ ] Score change, but no status Change
[ ] Deletion

VPDES NO. : VA0051683

Facility Name: Colonial Pipeline – Chantilly Station
City / County: Clifton / Fairfax County
Receiving Water: UT to Little Rocky Run
Waterbody ID: VAN-A23R

Is this facility a steam electric power plant (sic =4911) with one or more of the following characteristics?

1. Power output 500 MW or greater (not using a cooling pond/lake)
2. A nuclear power Plant
3. Cooling water discharge greater than 25% of the receiving stream's 7Q10 flow rater

[ ] Yes; score is 600 (stop here) [X] NO; (continue)

Is this permit for a municipal separate storm sewer serving a population greater than 100,000?

[ ] YES; score is 700 (stop here)
[X] NO; (continue)

FACTOR 1: Toxic Pollutant Potential

PCS SIC Code: _____ Primary Sic Code: 4613 Other Sic Codes: _____ _____ _____

Industrial Subcategory Code: 000 (Code 000 if no subcategory)

Determine the Toxicity potential from Appendix A. Be sure to use the TOTAL toxicity potential column and check one)

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
[X] No process waste streams	0	0	[ ] 3.	3	15	[ ] 7.	7	35
[ ] 1.	1	5	[ ] 4.	4	20	[ ] 8.	8	40
[ ] 2.	2	10	[ ] 5.	5	25	[ ] 9.	9	45
			[ ] 6.	6	30	[ ] 10.	10	50

Code Number Checked: 0

Total Points Factor 1: 0

FACTOR 2: Flow/Stream Flow Volume (Complete either Section A or Section B; check only one)

Section A – Wastewater Flow Only considered

Wastewater Type (see Instructions)			Code	Points
Type I:	Flow < 5 MGD	[ ]	11	0
	Flow 5 to 10 MGD	[ ]	12	10
	Flow > 10 to 50 MGD	[ ]	13	20
	Flow > 50 MGD	[ ]	14	30
Type II:	Flow < 1 MGD	[ ]	21	10
	Flow 1 to 5 MGD	[ ]	22	20
	Flow > 5 to 10 MGD	[ ]	23	30
	Flow > 10 MGD	[ ]	24	50
Type III:	Flow < 1 MGD	[ ]	31	0
	Flow 1 to 5 MGD	[ ]	32	10
	Flow > 5 to 10 MGD	[ ]	33	20
	Flow > 10 MGD	[ ]	34	30

Section B – Wastewater and Stream Flow Considered

Wastewater Type (see Instructions)	Percent of Instream Wastewater Concentration at Receiving Stream Low Flow		Code	Points
Type I/III:	< 10 %	[ ]	41	0
	10 % to < 50 %	[ ]	42	10
	> 50%	[ ]	43	20
Type II:	< 10 %	[ ]	51	0
	10 % to < 50 %	[ ]	52	20
	> 50 %	[X]	53	30

Code Checked from Section A or B: 53

Total Points Factor 2: 30

NPDES PERMIT RATING WORK SHEET

FACTOR 3: Conventional Pollutants

(only when limited by the permit)

A. Oxygen Demanding Pollutants: (check one) ☐ BOD ☐ COD ☐ Other: _____

Permit Limits: (check one)	Code	Points
☐ < 100 lbs/day	1	0
☐ 100 to 1000 lbs/day	2	5
☐ > 1000 to 3000 lbs/day	3	15
☐ > 3000 lbs/day	4	20

Code Number Checked: NA

Points Scored: 0

B. Total Suspended Solids (TSS)

Permit Limits: (check one)	Code	Points
☐ < 100 lbs/day	1	0
☐ 100 to 1000 lbs/day	2	5
☐ > 1000 to 5000 lbs/day	3	15
☐ > 5000 lbs/day	4	20

Code Number Checked: NA

Points Scored: 0

C. Nitrogen Pollutants: (check one) ☐ Ammonia ☐ Other: _____

Permit Limits: (check one) *Nitrogen Equivalent*	Code	Points
☐ < 300 lbs/day	1	0
☐ 300 to 1000 lbs/day	2	5
☐ > 1000 to 3000 lbs/day	3	15
☐ > 3000 lbs/day	4	20

Code Number Checked: NA

Points Scored: 0

Total Points Factor 3: 0

FACTOR 4: Public Health Impact

Is there a public drinking water supply located within 50 miles downstream of the effluent discharge (this include any body of water to which the receiving water is a tributary)? A public drinking water supply may include infiltration galleries, or other methods of conveyance that ultimately get water from the above reference supply.

☒ YES; (If yes, check toxicity potential number below)

☐ NO; (If no, go to Factor 5)

Determine the *Human Health* potential from Appendix A. Use the same SIC code and subcategory reference as in Factor 1. (Be sure to use the *Human Health* toxicity group column – check one below)

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
☐ No process waste streams	0	0	☐ 3.	3	0	☐ 7.	7	15
☐ 1.	1	0	☐ 4.	4	0	☒ 8.	8	20
☐ 2.	2	0	☐ 5.	5	5	☐ 9.	9	25
			☐ 6.	6	10	☐ 10.	10	30

Code Number Checked: 8

Total Points Factor 4: 20

NPDES PERMIT RATING WORK SHEET

FACTOR 5: Water Quality Factors

A. Is (or will) one or more of the effluent discharge limits based on water quality factors of the receiving stream (rather than technology-base federal effluent guidelines, or technology-base state effluent guidelines), or has a wasteload allocation been to the discharge

		Code	Points
[ ]	YES	1	10
[X]	NO	2	0

B. Is the receiving water in compliance with applicable water quality standards for pollutants that are water quality limited in the permit?

		Code	Points
[X]	YES	1	0
[ ]	NO	2	5

C. Does the effluent discharged from this facility exhibit the reasonable potential to violate water quality standards due to whole effluent toxicity?

		Code	Points
[ ]	YES	1	10
[X]	NO	2	0

Code Number Checked: A 2 B 1 C 2

Points Factor 5: A 0 + B 0 + C 0 = **0**

FACTOR 6: Proximity to Near Coastal Waters

A. Base Score: Enter flow code here (from factor 2) 53

Check appropriate facility HPRI code (from PCS):

	HPRI#	Code	HPRI Score
[ ]	1	1	20
[ ]	2	2	0
[ ]	3	3	30
[X]	4	4	0
[ ]	5	5	20

Enter the multiplication factor that corresponds to the flow code: 0.60

Flow Code	Multiplication Factor
11, 31, or 41	0.00
12, 32, or 42	0.05
13, 33, or 43	0.10
14 or 34	0.15
21 or 51	0.10
22 or 52	0.30
23 or 53	0.60
24	1.00

HPRI code checked : 4

Base Score (HPRI Score): 0 X (Multiplication Factor) 0.6 = 0

B. Additional Points – NEP Program

For a facility that has an HPRI code of 3, does the facility discharge to one of the estuaries enrolled in the National Estuary Protection (NEP) program (see instructions) or the Chesapeake Bay?

	Code	Points
[ ]	1	10
[ ]	2	0

C. Additional Points – Great Lakes Area of Concern

For a facility that has an HPRI code of 5, does the facility discharge any of the pollutants of concern into one of the Great Lakes' 31 area's of concern (see instructions)?

	Code	Points
[ ]	1	10
[ ]	2	0

Code Number Checked: A 4 B NA C NA

Points Factor 6: A 0 + B 0 + C 0 = **0**

NPDES PERMIT RATING WORK SHEET

SCORE SUMMARY

Factor	Description	Total Points
1	Toxic Pollutant Potential	0
2	Flows / Streamflow Volume	30
3	Conventional Pollutants	0
4	Public Health Impacts	20
5	Water Quality Factors	0
6	Proximity to Near Coastal Waters	0
	TOTAL (Factors 1 through 6)	50

S1. Is the total score equal to or grater than 80 ☐ YES; (Facility is a Major) ☒ NO

S2. If the answer to the above questions is no, would you like this facility to be discretionary major?

☒ NO

☐ YES; (Add 500 points to the above score and provide reason below

Reason: _____

NEW SCORE : 50

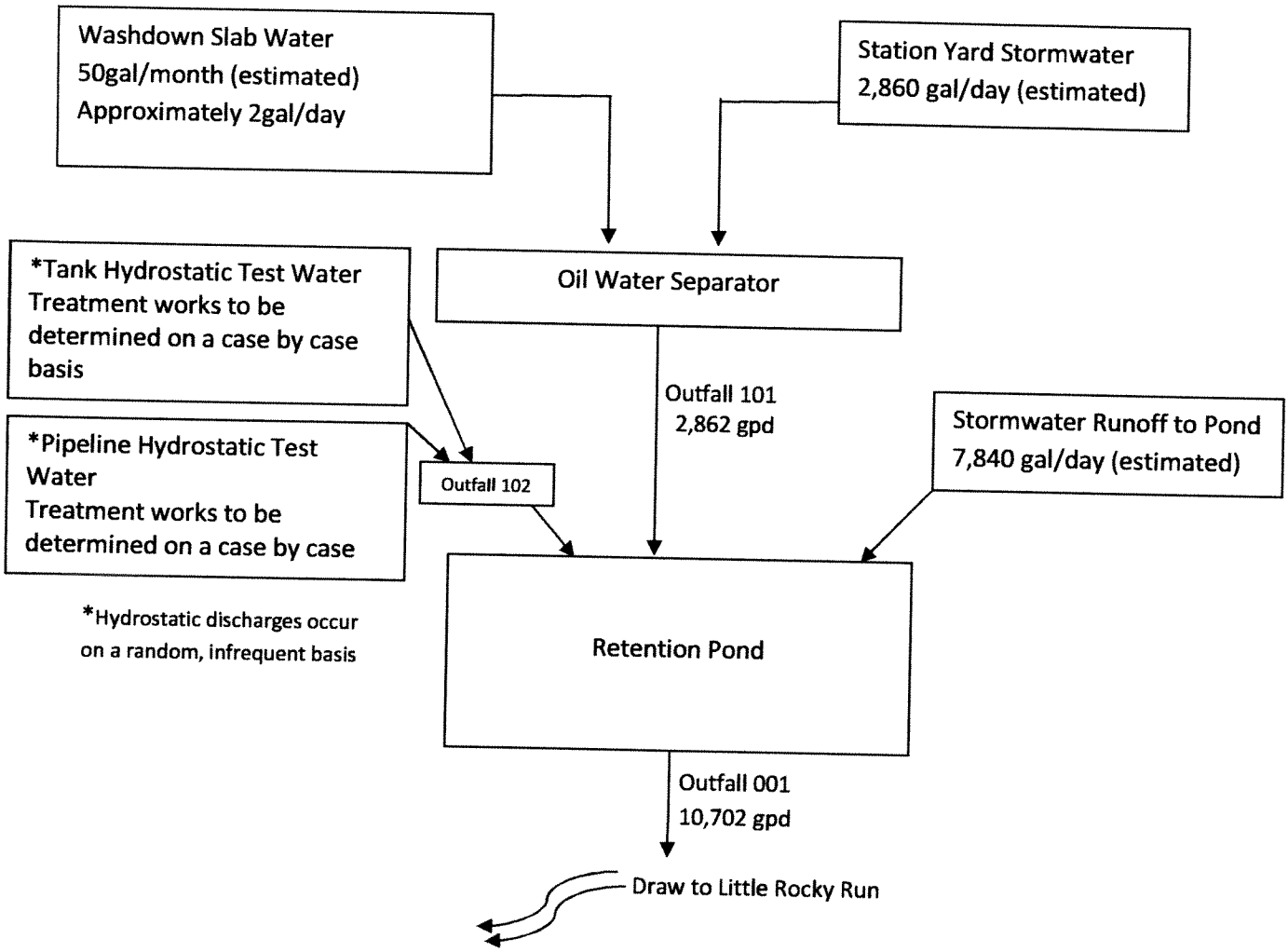
OLD SCORE : 30

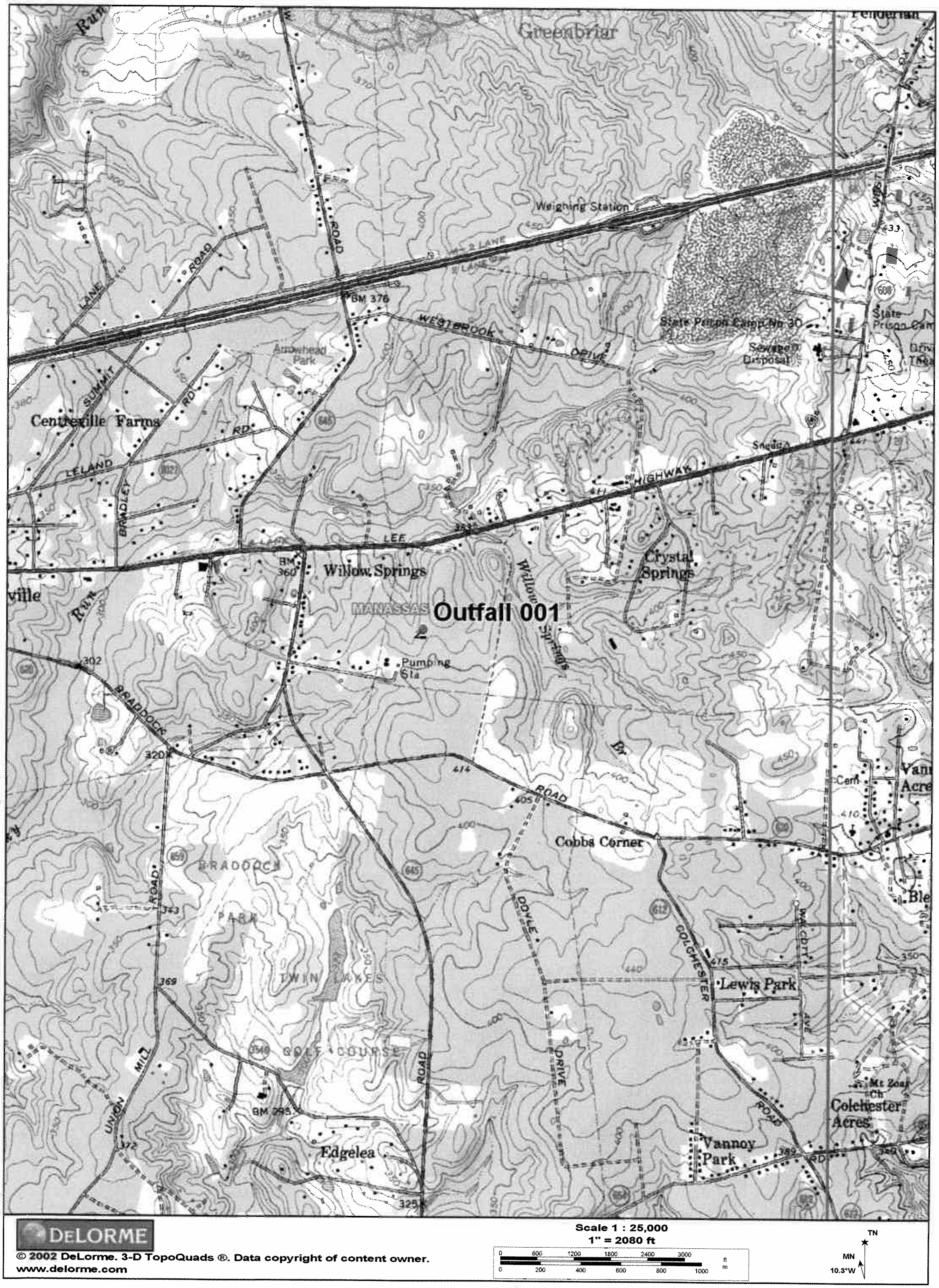
Permit Reviewer's Name : Susan Mackert

Phone Number: (703) 583-3853

Date: June 14, 2011

COLONIAL PIPELINE – CHANTILLY STATION FLOW DIAGRAM




Greenbriar
Weighing Station
BM 376
WESTBROOK DRIVE
Arrowhead Park
State Prison Camp No 30
Sewage Disposal
Centreville Farms
LELAND RD
SUMMIT
BRADLEY
HIGHWAY
LEE
Willow Springs
Crystal Springs
MANASSAS
Outfall 001
Pumping Sta
BRADDOCK ROAD
Cobbs Corner
BRADDOCK PARK
TWIN LAKES
GOLF COURSE
UNION MILL ROAD
DOYLE DRIVE
COLCHESTER ROAD
Lewis Park
Vannoy Park
Edgelea
Colchester Acres
Mt Zoar Ch
BM 295
DELORME
© 2002 DeLorme. 3-D TopoQuads ®. Data copyright of content owner.
www.delorme.com
Scale 1 : 25,000
1" = 2080 ft
TN
MN
10.3°W

Name of Facility Chantilly Station

HAZARDOUS CHEMICAL LIST

CHEMICAL OR COMMON NAME	MANUFACTURER	AVERAGE DAILY AMT. ON HAND
999 Safety Cleaner Degreaser	State Chemical	75 Gal
Heavy Duty Wax & Acrylic Stripper	Premier Chemical	5 gal
Purple K Dry Chemical and 6 Fire Extinguishers	Ansul	170 Lb
Quick Draw Weed Killer	State Chemical	10 Gal
ATF D/M Auto Matic Transmission Fluid	Mobil	55 Gal
DTE Medium Turbine Oil	Mobil	20 Gal
DTE Oil Medium Oil	Mobil	7 Gal
Aero HFA Aviation Hydraulic Fluid	Mobil	5 Gal
DTE 15 M HYD Oil	Mobil	5 Gal
DTE Oil Heavy Medium	Mobil	15 Gal
Mobilux EP 111 Coupling Grease	Mobil	35 LB
Mobilux EPO Grease	Mobil	125 LB
High Performance Gear Lube SAE 80w/90	Valvoline	5 Gal

MEMORANDUM

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

NORTHERN REGIONAL OFFICE

13901 Crown Court Woodbridge, VA 22193

SUBJECT: Colonial Pipeline – Chantilly Station (VA0051683)

TO: Reissuance File

FROM: Susan Mackert

DATE: March 18, 2011

A site visit was conducted on March 11, 2011, in support of the permit reissuance for the aforementioned facility. An application package was received on December 16, 2010, and the site visit confirms that the application received is accurate and representative of actual site conditions. No physical or operational changes have taken place at the facility since the previous reissuance.

Colonial Pipeline is a federally regulated common carrier pipeline transporting refined petroleum products consisting of gasoline, kerosene, and #2 fuel oils (photo 1). There are two product lines associated with the facility; a 32" diameter 04 line and a 36" diameter 03 line. The Chantilly Station serves as a pump station to increase pressure in the pipeline to maintain flow rate. Additionally, the Chantilly Station is a takeoff point for movement of product to the Fairfax Delivery facility. Movement of all petroleum products in and out of the facility is solely by pipeline.

The facility's Operation and Maintenance Manual was reviewed on site. DEQ staff had no comments on the manual. The manual does contain a log for oil-water separator inspections. The oil-water separator was last cleaned on November 16, 2010.

The facility has one – three thousand barrel capacity breakout tank for product storage (photo 2). Any product that enters the facility's oil-water separator (photos 3 - 4) is skimmed off and directed to the station's sump which is ultimately pumped to the breakout tank. The tank is located within a diked area with the dike drain valve closed at all times. Visual inspections are conducted prior to any storm water being released from the diked area.

Additionally, there are two – five hundred barrel tanks which were permanently closed in June 2006. Both tanks are scheduled to be removed from the facility.

A description of the facility's permitted outfalls is provided below:

Outfall 001
Flow from the facility's retention pond (photos 5 - 6), which includes discharges from the internal outfalls listed below, discharges via a submerged overflow to a dry ditch leading to the UT to Little Rocky Run (photo 7).

Outfall 101

All storm water is collected by an underground drainage system and routed to an oil-water separator system for treatment. The storm water then discharges via internal Outfall 101 (photo 8) to the facility's retention pond.

Washdown slab water is an intermittent discharge that is generated when equipment is cleaned (with water) to remove any refined petroleum products. Water from the washdown slab is piped to the oil-water separator system for treatment. The washdown water then discharges via internal Outfall 101 to the facility's retention pond.

Outfall 102

Hydrostatic test water is generated periodically during hydrostatic tests of the facility piping, pipelines, and/or tankage. Test water is discharged via internal Outfall 102 to the facility's retention pond.

Photo 1. General area.

Photo 2. Breakout tank.

Photo 3. Oil-water separator.

Photo 4. Oil-water separator outlet.

Photo 5. Combined with photo six shows retention pond.

Photo 6. Combined with photo five shows retention pond.

Photo 7. Outfall 001.

Photo 8. Outfall 101. The boom is always in place as an added best management practice.

FRESHWATER
WATER QUALITY CRITERIA / WASTELOAD ALLOCATION ANALYSIS

Facility Name: Colonial Pipeline - Chantilly Station Permit No.: VA0051683

Receiving Stream: UT to Little Rocky Run Version: OWP Guidance Memo 00-2011 (8/24/00)

Stream Information

Mean Hardness (as CaCO3) =	mg/L
90% Temperature (Annual) =	deg C
90% Temperature (Wet season) =	deg C
90% Maximum pH =	SU
10% Maximum pH =	SU
Tier Designation (1 or 2) =	1
Public Water Supply (PWS) Y/N? =	n
Trout Present Y/N? =	n
Early Life Stages Present Y/N? =	y

Stream Flows

1Q10 (Annual) =	0 MGD
7Q10 (Annual) =	0 MGD
30Q10 (Annual) =	0 MGD
1Q10 (Wet season) =	0 MGD
30Q10 (Wet season)	0 MGD
30Q5 =	0 MGD
Harmonic Mean =	0 MGD

Mixing Information

Annual - 1Q10 Mix =	100 %
- 7Q10 Mix =	100 %
- 30Q10 Mix =	100 %
Wet Season - 1Q10 Mix =	100 %
- 30Q10 Mix =	100 %

Effluent Information

Mean Hardness (as CaCO3) =	50 mg/L
90% Temp (Annual) =	25 deg C
90% Temp (Wet season) =	deg C
90% Maximum pH =	7.9 SU
10% Maximum pH =	7.1 SU
Discharge Flow =	0.079 MGD

Parameter	Background	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				**Most Limiting Allocations**			
(ug/l unless noted)	Conc.	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	**Acute**	**Chronic**	**HH (PWS)**	**HH**
Acenapthene	0	--	--	na	9.9E+02	--	--	na	9.9E+02	--	--	--	--	--	--	--	--	--	--	na	**9.9E+02**
Acrolein	0	--	--	na	9.3E+00	--	--	na	9.3E+00	--	--	--	--	--	--	--	--	--	--	na	**9.3E+00**
Acrylonitrile [C]	0	--	--	na	2.5E+00	--	--	na	2.5E+00	--	--	--	--	--	--	--	--	--	--	na	**2.5E+00**
Aldrin [C]	0	3.0E+00	--	na	5.0E-04	3.0E+00	--	na	5.0E-04	--	--	--	--	--	--	--	--	**3.0E+00**	--	na	**5.0E-04**
Ammonia-N (mg/l) (Yearly)	0	1.01E+01	1.42E+00	na	--	1.0E+01	1.4E+00	na	--	--	--	--	--	--	--	--	--	**1.0E+01**	**1.4E+00**	na	--
Ammonia-N (mg/l) (High Flow)	0	1.01E+01	2.80E+00	na	--	1.0E+01	2.8E+00	na	--	--	--	--	--	--	--	--	--	**1.0E+01**	**2.8E+00**	na	--
Anthracene	0	--	--	na	4.0E+04	--	--	na	4.0E+04	--	--	--	--	--	--	--	--	--	--	na	**4.0E+04**
Antimony	0	--	--	na	6.4E+02	--	--	na	6.4E+02	--	--	--	--	--	--	--	--	--	--	na	**6.4E+02**
Arsenic	0	3.4E+02	1.5E+02	na	--	3.4E+02	1.5E+02	na	--	--	--	--	--	--	--	--	--	**3.4E+02**	**1.5E+02**	na	--
Barium	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Benzene [C]	0	--	--	na	5.1E+02	--	--	na	5.1E+02	--	--	--	--	--	--	--	--	--	--	na	**5.1E+02**
Benzidine [C]	0	--	--	na	2.0E-03	--	--	na	2.0E-03	--	--	--	--	--	--	--	--	--	--	na	**2.0E-03**
Benzo (a) anthracene [C]	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	**1.8E-01**
Benzo (b) fluoranthene [C]	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	**1.8E-01**
Benzo (k) fluoranthene [C]	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	**1.8E-01**
Benzo (a) pyrene [C]	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	**1.8E-01**
Bis2-Chloroethyl Ether [C]	0	--	--	na	5.3E+00	--	--	na	5.3E+00	--	--	--	--	--	--	--	--	--	--	na	**5.3E+00**
Bis2-Chloroisopropyl Ether	0	--	--	na	6.5E+04	--	--	na	6.5E+04	--	--	--	--	--	--	--	--	--	--	na	**6.5E+04**
Bis 2-Ethylhexyl Phthalate [C]	0	--	--	na	2.2E+01	--	--	na	2.2E+01	--	--	--	--	--	--	--	--	--	--	na	**2.2E+01**
Bromoform [C]	0	--	--	na	1.4E+03	--	--	na	1.4E+03	--	--	--	--	--	--	--	--	--	--	na	**1.4E+03**
Butylbenzylphthalate	0	--	--	na	1.9E+03	--	--	na	1.9E+03	--	--	--	--	--	--	--	--	--	--	na	**1.9E+03**
Cadmium	0	1.8E+00	6.6E-01	na	--	1.8E+00	6.6E-01	na	--	--	--	--	--	--	--	--	--	**1.8E+00**	**6.6E-01**	na	--
Carbon Tetrachloride [C]	0	--	--	na	1.6E+01	--	--	na	1.6E+01	--	--	--	--	--	--	--	--	--	--	na	**1.6E+01**
Chlordane [C]	0	2.4E+00	4.3E-03	na	8.1E-03	2.4E+00	4.3E-03	na	8.1E-03	--	--	--	--	--	--	--	--	**2.4E+00**	**4.3E-03**	na	**8.1E-03**
Chloride	0	8.6E+05	2.3E+05	na	--	8.6E+05	2.3E+05	na	--	--	--	--	--	--	--	--	--	**8.6E+05**	**2.3E+05**	na	--
TRC	0	1.9E+01	1.1E+01	na	--	1.9E+01	1.1E+01	na	--	--	--	--	--	--	--	--	--	**1.9E+01**	**1.1E+01**	na	--
Chlorobenzene	0	--	--	na	1.6E+03	--	--	na	1.6E+03	--	--	--	--	--	--	--	--	--	--	na	**1.6E+03**

Parameter	Background	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
(ug/l unless noted)	Conc.	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Chlorodibromomethane[C]	0	--	--	na	1.3E+02	--	--	na	1.3E+02	--	--	--	--	--	--	--	--	--	--	na	1.3E+02
Chloroform	0	--	--	na	1.1E+04	--	--	na	1.1E+04	--	--	--	--	--	--	--	--	--	--	na	1.1E+04
2-Chloronaphthalene	0	--	--	na	1.6E+03	--	--	na	1.6E+03	--	--	--	--	--	--	--	--	--	--	na	1.6E+03
2-Chlorophenol	0	--	--	na	1.5E+02	--	--	na	1.5E+02	--	--	--	--	--	--	--	--	--	--	na	1.5E+02
Chlorpyrifos	0	8.3E-02	4.1E-02	na	--	8.3E-02	4.1E-02	na	--	--	--	--	--	--	--	--	--	8.3E-02	4.1E-02	na	--
Chromium III	0	3.2E+02	4.2E+01	na	--	3.2E+02	4.2E+01	na	--	--	--	--	--	--	--	--	--	3.2E+02	4.2E+01	na	--
Chromium VI	0	1.6E+01	1.1E+01	na	--	1.6E+01	1.1E+01	na	--	--	--	--	--	--	--	--	--	1.6E+01	1.1E+01	na	--
Chromium, Total	0	--	--	1.0E+02	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Chrysene[C]	0	--	--	na	1.8E-02	--	--	na	1.8E-02	--	--	--	--	--	--	--	--	--	--	na	1.8E-02
Copper	0	7.0E+00	5.0E+00	na	--	7.0E+00	5.0E+00	na	--	--	--	--	--	--	--	--	--	7.0E+00	5.0E+00	na	--
Cyanide, Free	0	2.2E+01	5.2E+00	na	1.6E+04	2.2E+01	5.2E+00	na	1.6E+04	--	--	--	--	--	--	--	--	2.2E+01	5.2E+00	na	1.6E+04
DDD[C]	0	--	--	na	3.1E-03	--	--	na	3.1E-03	--	--	--	--	--	--	--	--	--	--	na	3.1E-03
DDE[C]	0	--	--	na	2.2E-03	--	--	na	2.2E-03	--	--	--	--	--	--	--	--	--	--	na	2.2E-03
DDT[C]	0	1.1E+00	1.0E-03	na	2.2E-03	1.1E+00	1.0E-03	na	2.2E-03	--	--	--	--	--	--	--	--	1.1E+00	1.0E-03	na	2.2E-03
Demeton	0	--	1.0E-01	na	--	--	1.0E-01	na	--	--	--	--	--	--	--	--	--	--	1.0E-01	na	--
Diazinon	0	1.7E-01	1.7E-01	na	--	1.7E-01	1.7E-01	na	--	--	--	--	--	--	--	--	--	1.7E-01	1.7E-01	na	--
Dibenz(a,h)anthracene[C]	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-01
1,2-Dichlorobenzene	0	--	--	na	1.3E+03	--	--	na	1.3E+03	--	--	--	--	--	--	--	--	--	--	na	1.3E+03
1,3-Dichlorobenzene	0	--	--	na	9.6E+02	--	--	na	9.6E+02	--	--	--	--	--	--	--	--	--	--	na	9.6E+02
1,4-Dichlorobenzene	0	--	--	na	1.9E+02	--	--	na	1.9E+02	--	--	--	--	--	--	--	--	--	--	na	1.9E+02
3,3-Dichlorobenzidine[C]	0	--	--	na	2.8E-01	--	--	na	2.8E-01	--	--	--	--	--	--	--	--	--	--	na	2.8E-01
Dichlorobromomethane[C]	0	--	--	na	1.7E+02	--	--	na	1.7E+02	--	--	--	--	--	--	--	--	--	--	na	1.7E+02
1,2-Dichloroethane[C]	0	--	--	na	3.7E+02	--	--	na	3.7E+02	--	--	--	--	--	--	--	--	--	--	na	3.7E+02
1,1-Dichloroethylene	0	--	--	na	7.1E+03	--	--	na	7.1E+03	--	--	--	--	--	--	--	--	--	--	na	7.1E+03
1,2-trans-dichloroethylene	0	--	--	na	1.0E+04	--	--	na	1.0E+04	--	--	--	--	--	--	--	--	--	--	na	1.0E+04
2,4-Dichlorophenol	0	--	--	na	2.9E+02	--	--	na	2.9E+02	--	--	--	--	--	--	--	--	--	--	na	2.9E+02
2,4-Dichlorophenoxy acetic acid (2,4-D)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
1,2-Dichloropropane[C]	0	--	--	na	1.5E+02	--	--	na	1.5E+02	--	--	--	--	--	--	--	--	--	--	na	1.5E+02
1,3-Dichloropropene[C]	0	--	--	na	2.1E+02	--	--	na	2.1E+02	--	--	--	--	--	--	--	--	--	--	na	2.1E+02
Dieldrin[C]	0	2.4E-01	5.6E-02	na	5.4E-04	2.4E-01	5.6E-02	na	5.4E-04	--	--	--	--	--	--	--	--	2.4E-01	5.6E-02	na	5.4E-04
Diethyl Phthalate	0	--	--	na	4.4E+04	--	--	na	4.4E+04	--	--	--	--	--	--	--	--	--	--	na	4.4E+04
2,4-Dimethylphenol	0	--	--	na	8.5E+02	--	--	na	8.5E+02	--	--	--	--	--	--	--	--	--	--	na	8.5E+02
Dimethyl Phthalate	0	--	--	na	1.1E+06	--	--	na	1.1E+06	--	--	--	--	--	--	--	--	--	--	na	1.1E+06
Di-n-Butyl Phthalate	0	--	--	na	4.5E+03	--	--	na	4.5E+03	--	--	--	--	--	--	--	--	--	--	na	4.5E+03
2,4 Dinitrophenol	0	--	--	na	5.3E+03	--	--	na	5.3E+03	--	--	--	--	--	--	--	--	--	--	na	5.3E+03
2-Methyl-4,6-Dinitrophenol	0	--	--	na	2.8E+02	--	--	na	2.8E+02	--	--	--	--	--	--	--	--	--	--	na	2.8E+02
2,4-Dinitrotoluene[C]	0	--	--	na	3.4E+01	--	--	na	3.4E+01	--	--	--	--	--	--	--	--	--	--	na	3.4E+01
Dioxin 2,3,7,8-tetrachlorodibenzo-p-dioxin	0	--	--	na	5.1E-08	--	--	na	5.1E-08	--	--	--	--	--	--	--	--	--	--	na	5.1E-08
1,2-Diphenylhydrazine[C]	0	--	--	na	2.0E+00	--	--	na	2.0E+00	--	--	--	--	--	--	--	--	--	--	na	2.0E+00
Alpha-Endosulfan	0	2.2E-01	5.6E-02	na	8.9E+01	2.2E-01	5.6E-02	na	8.9E+01	--	--	--	--	--	--	--	--	2.2E-01	5.6E-02	na	8.9E+01
Beta-Endosulfan	0	2.2E-01	5.6E-02	na	8.9E+01	2.2E-01	5.6E-02	na	8.9E+01	--	--	--	--	--	--	--	--	2.2E-01	5.6E-02	na	8.9E+01
Alpha + Beta Endosulfan	0	2.2E-01	5.6E-02	--	--	2.2E-01	5.6E-02	--	--	--	--	--	--	--	--	--	--	2.2E-01	5.6E-02	--	--
Endosulfan Sulfate	0	--	--	na	8.9E+01	--	--	na	8.9E+01	--	--	--	--	--	--	--	--	--	--	na	8.9E+01
Endrin	0	8.6E-02	3.6E-02	na	6.0E-02	8.6E-02	3.6E-02	na	6.0E-02	--	--	--	--	--	--	--	--	8.6E-02	3.6E-02	na	6.0E-02
Endrin Aldehyde	0	--	--	na	3.0E-01	--	--	na	3.0E-01	--	--	--	--	--	--	--	--	--	--	na	3.0E-01

Parameter	Background	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
(ug/l unless noted)	Conc.	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Ethylbenzene	0	--	--	na	2.1E+03	--	--	na	2.1E+03	--	--	--	--	--	--	--	--	--	--	na	2.1E+03
Fluoranthene	0	--	--	na	1.4E+02	--	--	na	1.4E+02	--	--	--	--	--	--	--	--	--	--	na	1.4E+02
Fluorene	0	--	--	na	5.3E+03	--	--	na	5.3E+03	--	--	--	--	--	--	--	--	--	--	na	5.3E+03
Foaming Agents	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Guthion	0	--	1.0E-02	na	--	--	1.0E-02	na	--	--	--	--	--	--	--	--	--	--	1.0E-02	na	--
Heptachlor [C]	0	5.2E-01	3.8E-03	na	7.9E-04	5.2E-01	3.8E-03	na	7.9E-04	--	--	--	--	--	--	--	--	5.2E-01	3.8E-03	na	7.9E-04
Heptachlor Epoxide[C]	0	5.2E-01	3.8E-03	na	3.9E-04	5.2E-01	3.8E-03	na	3.9E-04	--	--	--	--	--	--	--	--	5.2E-01	3.8E-03	na	3.9E-04
Hexachlorobenzene[C]	0	--	--	na	2.9E-03	--	--	na	2.9E-03	--	--	--	--	--	--	--	--	--	--	na	2.9E-03
Hexachlorobutadiene[C]	0	--	--	na	1.8E+02	--	--	na	1.8E+02	--	--	--	--	--	--	--	--	--	--	na	1.8E+02
Hexachlorocyclohexane Alpha-BHC[C]	0	--	--	na	4.9E-02	--	--	na	4.9E-02	--	--	--	--	--	--	--	--	--	--	na	4.9E-02
Hexachlorocyclohexane Beta-BHC[C]	0	--	--	na	1.7E-01	--	--	na	1.7E-01	--	--	--	--	--	--	--	--	--	--	na	1.7E-01
Hexachlorocyclohexane Gamma-BHC[C] (Lindane)	0	9.5E-01	na	na	1.8E+00	9.5E-01	--	na	1.8E+00	--	--	--	--	--	--	--	--	9.5E-01	--	na	1.8E+00
Hexachlorocyclopentadiene	0	--	--	na	1.1E+03	--	--	na	1.1E+03	--	--	--	--	--	--	--	--	--	--	na	1.1E+03
Hexachloroethane[C]	0	--	--	na	3.3E+01	--	--	na	3.3E+01	--	--	--	--	--	--	--	--	--	--	na	3.3E+01
Hydrogen Sulfide	0	--	2.0E+00	na	--	--	2.0E+00	na	--	--	--	--	--	--	--	--	--	--	2.0E+00	na	--
Indeno (1,2,3-cd) pyrene [C]	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-01
Iron	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Isophorone[C]	0	--	--	na	9.6E+03	--	--	na	9.6E+03	--	--	--	--	--	--	--	--	--	--	na	9.6E+03
Kepone	0	--	0.0E+00	na	--	--	0.0E+00	na	--	--	--	--	--	--	--	--	--	--	0.0E+00	na	--
Lead	0	4.9E+01	5.6E+00	na	--	4.9E+01	5.6E+00	na	--	--	--	--	--	--	--	--	--	4.9E+01	5.6E+00	na	--
Malathion	0	--	1.0E-01	na	--	--	1.0E-01	na	--	--	--	--	--	--	--	--	--	--	1.0E-01	na	--
Manganese	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Mercury	0	1.4E+00	7.7E-01	--	--	1.4E+00	7.7E-01	--	--	--	--	--	--	--	--	--	--	1.4E+00	7.7E-01	--	--
Methyl Bromide	0	--	--	na	1.5E+03	--	--	na	1.5E+03	--	--	--	--	--	--	--	--	--	--	na	1.5E+03
Methylene Chloride [C]	0	--	--	na	5.9E+03	--	--	na	5.9E+03	--	--	--	--	--	--	--	--	--	--	na	5.9E+03
Methoxychlor	0	--	3.0E-02	na	--	--	3.0E-02	na	--	--	--	--	--	--	--	--	--	--	3.0E-02	na	--
Mirex	0	--	0.0E+00	na	--	--	0.0E+00	na	--	--	--	--	--	--	--	--	--	--	0.0E+00	na	--
Nickel	0	1.0E+02	1.1E+01	na	4.6E+03	1.0E+02	1.1E+01	na	4.6E+03	--	--	--	--	--	--	--	--	1.0E+02	1.1E+01	na	4.6E+03
Nitrate (as N)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Nitrobenzene	0	--	--	na	6.9E+02	--	--	na	6.9E+02	--	--	--	--	--	--	--	--	--	--	na	6.9E+02
N-Nitrosodimethylamine[C]	0	--	--	na	3.0E+01	--	--	na	3.0E+01	--	--	--	--	--	--	--	--	--	--	na	3.0E+01
N-Nitrosodiphenylamine[C]	0	--	--	na	6.0E+01	--	--	na	6.0E+01	--	--	--	--	--	--	--	--	--	--	na	6.0E+01
N-Nitrosodi-n-propylamine[C]	0	--	--	na	5.1E+00	--	--	na	5.1E+00	--	--	--	--	--	--	--	--	--	--	na	5.1E+00
Nonylphenol	0	2.8E+01	6.6E+00	--	--	2.8E+01	6.6E+00	na	--	--	--	--	--	--	--	--	--	2.8E+01	6.6E+00	na	--
Parathion	0	6.5E-02	1.3E-02	na	--	6.5E-02	1.3E-02	na	--	--	--	--	--	--	--	--	--	6.5E-02	1.3E-02	na	--
PCB Total[C]	0	--	1.4E-02	na	6.4E-04	--	1.4E-02	na	6.4E-04	--	--	--	--	--	--	--	--	--	1.4E-02	na	6.4E-04
Pentachlorophenol [C]	0	9.6E+00	7.4E+00	na	3.0E+01	9.6E+00	7.4E+00	na	3.0E+01	--	--	--	--	--	--	--	--	9.6E+00	7.4E+00	na	3.0E+01
Phenol	0	--	--	na	8.6E+05	--	--	na	8.6E+05	--	--	--	--	--	--	--	--	--	--	na	8.6E+05
Pyrene	0	--	--	na	4.0E+03	--	--	na	4.0E+03	--	--	--	--	--	--	--	--	--	--	na	4.0E+03
Radionuclides	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Gross Alpha Activity (pCi/L)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Beta and Photon Activity (mrem/yr)	0	--	--	na	4.0E+00	--	--	na	4.0E+00	--	--	--	--	--	--	--	--	--	--	na	4.0E+00
Radium 226 + 228 (pCi/L)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Uranium (ug/l)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--

Parameter	Background	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
(ug/l unless noted)	Conc.	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	**Acute**	**Chronic**	**HH (PWS)**	**HH**
Selenium, Total Recoverable	0	2.0E+01	5.0E+00	na	4.2E+03	2.0E+01	5.0E+00	na	4.2E+03	--	--	--	--	--	--	--	--	**2.0E+01**	**5.0E+00**	**na**	**4.2E+03**
Silver	0	1.0E+00	--	na	--	1.0E+00	--	na	--	--	--	--	--	--	--	--	--	**1.0E+00**	**--**	**na**	**--**
Sulfate	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**--**
1,1,2,2-Tetrachloroethane[C]	0	--	--	na	4.0E+01	--	--	na	4.0E+01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**4.0E+01**
Tetrachloroethylene[C]	0	--	--	na	3.3E+01	--	--	na	3.3E+01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**3.3E+01**
Thallium	0	--	--	na	4.7E-01	--	--	na	4.7E-01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**4.7E-01**
Toluene	0	--	--	na	6.0E+03	--	--	na	6.0E+03	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**6.0E+03**
Total dissolved solids	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**--**
Toxaphene [C]	0	7.3E-01	2.0E-04	na	2.8E-03	7.3E-01	2.0E-04	na	2.8E-03	--	--	--	--	--	--	--	--	**7.3E-01**	**2.0E-04**	**na**	**2.8E-03**
Tributyltin	0	4.6E-01	7.2E-02	na	--	4.6E-01	7.2E-02	na	--	--	--	--	--	--	--	--	--	**4.6E-01**	**7.2E-02**	**na**	**--**
1,2,4-Trichlorobenzene	0	--	--	na	7.0E+01	--	--	na	7.0E+01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**7.0E+01**
1,1,2-Trichloroethane[C]	0	--	--	na	1.6E+02	--	--	na	1.6E+02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.6E+02**
Trichloroethylene [C]	0	--	--	na	3.0E+02	--	--	na	3.0E+02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**3.0E+02**
2,4,6-Trichlorophenol [C]	0	--	--	na	2.4E+01	--	--	na	2.4E+01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**2.4E+01**
2-(2,4,5-Trichlorophenoxy) propionic acid (Silvex)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**--**
Vinyl Chloride[C]	0	--	--	na	2.4E+01	--	--	na	2.4E+01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**2.4E+01**
Zinc	0	6.5E+01	6.6E+01	na	2.6E+04	6.5E+01	6.6E+01	na	2.6E+04	--	--	--	--	--	--	--	--	**6.5E+01**	**6.6E+01**	**na**	**2.6E+04**

Notes:

1. All concentrations expressed as micrograms/liter (ug/l), unless noted otherwise
2. Discharge flow is highest monthly average or Form 2C maximum for Industries and design flow for Municipals
3. Metals measured as Dissolved, unless specified otherwise
4. "C" indicates a carcinogenic parameter
5. Regular WLAs are mass balances (minus background concentration) using the % of stream flow entered above under Mixing Information.
   Antidegradation WLAs are based upon a complete mix.
6. Antideg. Baseline = (0.25(WQC - background conc.) + background conc.) for acute and chronic
   = (0.1(WQC - background conc.) + background conc.) for human health
7. WLAs established at the following stream flows: 1Q10 for Acute, 30Q10 for Chronic Ammonia, 7Q10 for Other Chronic, 30Q5 for Non-carcinogens and Harmonic Mean for Carcinogens. To apply mixing ratios from a model set the stream flow equal to (mixing ratio - 1), effluent flow equal to 1 and 100% mix.

Metal	Target Value (SSTV)
Antimony	6.4E+02
Arsenic	9.0E+01
Barium	na
Cadmium	3.9E-01
Chromium III	2.5E+01
Chromium VI	6.4E+00
Copper	2.8E+00
Iron	na
Lead	3.4E+00
Manganese	na
Mercury	4.6E-01
Nickel	6.8E+00
Selenium	3.0E+00
Silver	4.2E-01
Zinc	2.6E+01

Note: do not use QL's lower than the minimum QL's provided in agency guidance

3/17/2011 1:06:01 PM

Facility = Colonial Pipeline - Chantilly Station
Chemical = Chlorine
Chronic averaging period = 4
WLAa = 0.019
WLAc = 0.011
Q.L. = 0.1
# samples/mo. = 1
# samples/wk. = 1

Summary of Statistics:

observations = 1
Expected Value = .2
Variance = .0144
C.V. = 0.6
97th percentile daily values = .486683
97th percentile 4 day average = .332758
97th percentile 30 day average= .241210
< Q.L. = 0
Model used = BPJ Assumptions, type 2 data

A limit is needed based on Chronic Toxicity
Maximum Daily Limit = 1.60883226245855E-02
Average Weekly limit = 1.60883226245855E-02
Average Monthly LImit = 1.60883226245855E-02

The data are:

0.2

DMR QA/QC

Permit #:VA0051683 Facility:Colonial Pipeline - Chantilly Station

Due	Outfall	Parameter Description	CONC MIN	Lim Min	CONC MAX	Lim Max
10-Aug-07	001	PH	7.14	6.0	7.21	9.0
10-Jul-08	001	PH	7.14	6.0	7.21	9.0
10-Jul-09	001	PH	7.51	6.0	7.51	9.0
10-Jul-10	001	PH	8.1	6.0	8.1	9.0

90% pH = 7.9

10% pH = 7.1

Public Notice – Environmental Permit

PURPOSE OF NOTICE: To seek public comment on a draft permit from the Department of Environmental Quality that will allow the release of treated industrial wastewater and storm water into a water body in Fairfax County, Virginia.

PUBLIC COMMENT PERIOD: April 22, 2011 to 5:00 p.m. on May 23, 2011

PERMIT NAME: Virginia Pollutant Discharge Elimination System Permit – Industrial wastewater and storm water issued by DEQ, under the authority of the State Water Control Board

APPLICANT NAME, ADDRESS AND PERMIT NUMBER: Colonial Pipeline Company, P.O. Box 18855, Alpharetta, GA 30326, VA0051683

NAME AND ADDRESS OF FACILITY: Colonial Pipeline – Chantilly Station, 13100 Moore Road, Clifton, VA 22024

PROJECT DESCRIPTION: Colonial Pipeline Company has applied for a reissuance of a permit for the private Colonial Pipeline – Chantilly Station. The applicant proposes to release treated industrial wastewater and storm water at a rate of 0.079 million gallons per day into a water body. The facility proposes to release the treated industrial wastewater and storm water in an unnamed tributary to Little Rocky Run in Fairfax County in the Potomac River watershed. A watershed is the land area drained by a river and its incoming streams. The permit will limit the following pollutants to amounts that protect water quality: pH, Total Petroleum Hydrocarbons, Total Suspended Solids, Total Residual Chlorine, Benzene, Ethylbenzene, Toluene, Total Xylenes, and Naphthalene.

HOW TO COMMENT AND/OR REQUEST A PUBLIC HEARING: DEQ accepts comments and requests for public hearing by e-mail, fax or postal mail. All comments and requests must be in writing and be received by DEQ during the comment period. Submittals must include the names, mailing addresses and telephone numbers of the commenter/requester and of all persons represented by the commenter/requester. A request for public hearing must also include: 1) The reason why a public hearing is requested. 2) A brief, informal statement regarding the nature and extent of the interest of the requester or of those represented by the requester, including how and to what extent such interest would be directly and adversely affected by the permit. 3) Specific references, where possible, to terms and conditions of the permit with suggested revisions. A public hearing may be held, including another comment period, if public response is significant, based on individual requests for a public hearing, and there are substantial, disputed issues relevant to the permit.

CONTACT FOR PUBLIC COMMENTS, DOCUMENT REQUESTS AND ADDITIONAL INFORMATION: The public may review the documents at the DEQ-Northern Regional Office by appointment, or may request electronic copies of the draft permit and fact sheet.
Name: Susan Mackert
Address: DEQ-Northern Regional Office, 13901 Crown Court, Woodbridge, VA 22193
Phone: (703) 583-3853 E-mail: susan.mackert@deq.virginia.gov Fax: (703) 583-3821

Revised 2/2003

State "Transmittal Checklist" to Assist in Targeting
Municipal and Industrial Individual NPDES Draft Permits for Review

Part I. State Draft Permit Submission Checklist

In accordance with the MOA established between the Commonwealth of Virginia and the United States Environmental Protection Agency, Region III, the Commonwealth submits the following draft National Pollutant Discharge Elimination System (NPDES) permit for Agency review and concurrence.

Facility Name:	Colonial Pipeline – Chantilly Station
NPDES Permit Number:	VA0051683
Permit Writer Name:	Susan Mackert
Date:	March 18, 2011

Major [ ] **Minor** [X] **Industrial** [X] **Municipal** [ ]

I.A. Draft Permit Package Submittal Includes:	**Yes**	**No**	**N/A**
1. Permit Application?	X		
2. Complete Draft Permit (for renewal or first time permit – entire permit, including boilerplate information)?	X		
3. Copy of Public Notice?	X		
4. Complete Fact Sheet?	X		
5. A Priority Pollutant Screening to determine parameters of concern?	X		
6. A Reasonable Potential analysis showing calculated WQBELs?	X		
7. Dissolved Oxygen calculations?			X
8. Whole Effluent Toxicity Test summary and analysis?			X
9. Permit Rating Sheet for new or modified industrial facilities?	X		

I.B. Permit/Facility Characteristics	**Yes**	**No**	**N/A**
1. Is this a new, or currently unpermitted facility?		X	
2. Are all permissible outfalls (including combined sewer overflow points, non-process water and storm water) from the facility properly identified and authorized in the permit?	X		
3. Does the fact sheet **or** permit contain a description of the wastewater treatment process?	X		
4. Does the review of PCS/DMR data for at least the last 3 years indicate significant non-compliance with the existing permit?		X	
5. Has there been any change in streamflow characteristics since the last permit was developed?		X	
6. Does the permit allow the discharge of new or increased loadings of any pollutants?		X	
7. Does the fact sheet **or** permit provide a description of the receiving water body(s) to which the facility discharges, including information on low/critical flow conditions and designated/existing uses?	X		
8. Does the facility discharge to a 303(d) listed water? (Downstream)	X		
a. Has a TMDL been developed and approved by EPA for the impaired water? (Downstream)	X		
b. Does the record indicate that the TMDL development is on the State priority list and will most likely be developed within the life of the permit?			X
c. Does the facility discharge a pollutant of concern identified in the TMDL or 303(d) listed water?		X	
9. Have any limits been removed, or are any limits less stringent, than those in the current permit?		X	

I.B. Permit/Facility Characteristics – cont.	Yes	No	N/A
10. Does the permit authorize discharges of storm water?	X		
11. Has the facility substantially enlarged or altered its operation or substantially increased its flow or production?		X	
12. Are there any production-based, technology-based effluent limits in the permit?	X		
13. Do any water quality-based effluent limit calculations differ from the State's standard policies or procedures?		X	
14. Are any WQBELs based on an interpretation of narrative criteria?		X	
15. Does the permit incorporate any variances or other exceptions to the State's standards or regulations?		X	
16. Does the permit contain a compliance schedule for any limit or condition?		X	
17. Is there a potential impact to endangered/threatened species or their habitat by the facility's discharge(s)?		X	
18. Have impacts from the discharge(s) at downstream potable water supplies been evaluated?	X		
19. Is there any indication that there is significant public interest in the permit action proposed for this facility?		X	
20. Have previous permit, application, and fact sheet been examined?	X		

Part II. NPDES Draft Permit Checklist

Region III NPDES Permit Quality Review Checklist – For Non-Municipals

II.A. Permit Cover Page/Administration	**Yes**	**No**	**N/A**
1. Does the fact sheet **or** permit describe the physical location of the facility, including latitude and longitude (not necessarily on permit cover page)?	X		
2. Does the permit contain specific authorization-to-discharge information (from where to where, by whom)?	X		

II.B. Effluent Limits – General Elements	**Yes**	**No**	**N/A**
1. Does the fact sheet describe the basis of final limits in the permit (e.g., that a comparison of technology and water quality-based limits was performed, and the most stringent limit selected)?	X		
2. Does the fact sheet discuss whether "antibacksliding" provisions were met for any limits that are less stringent than those in the previous NPDES permit?			X

II.C. Technology-Based Effluent Limits (Effluent Guidelines & BPJ)	**Yes**	**No**	**N/A**
1. Is the facility subject to a national effluent limitations guideline (ELG)?		X	
a. If yes, does the record adequately document the categorization process, including an evaluation of whether the facility is a new source or an existing source?			X
b. If no, does the record indicate that a technology-based analysis based on Best Professional Judgement (BPJ) was used for all pollutants of concern discharged at treatable concentrations?	X		
2. For all limits developed based on BPJ, does the record indicate that the limits are consistent with the criteria established at 40 CFR 125.3(d)?	X		
3. Does the fact sheet adequately document the calculations used to develop both ELG and /or BPJ technology-based effluent limits?	X		
4. For all limits that are based on production or flow, does the record indicate that the calculations are based on a "reasonable measure of ACTUAL production" for the facility (not design)?			X
5. Does the permit contain "tiered" limits that reflect projected increases in production or flow?		X	
a. If yes, does the permit require the facility to notify the permitting authority when alternate levels of production or flow are attained?			X
6. Are technology-based permit limits expressed in appropriate units of measure (e.g., concentration, mass, SU)?	X		
7. Are all technology-based limits expressed in terms of both maximum daily, weekly average, and/or monthly average limits?	X		
8. Are any final limits less stringent than required by applicable effluent limitations guidelines or BPJ?		X	

II.D. Water Quality-Based Effluent Limits	**Yes**	**No**	**N/A**
1. Does the permit include appropriate limitations consistent with 40 CFR 122.44(d) covering State narrative and numeric criteria for water quality?	X		
2. Does the record indicate that any WQBELs were derived from a completed and EPA approved TMDL?		X	
3. Does the fact sheet provide effluent characteristics for each outfall?	X		
4. Does the fact sheet document that a "reasonable potential" evaluation was performed?	X		
a. If yes, does the fact sheet indicate that the "reasonable potential" evaluation was performed in accordance with the State's approved procedures?	X		
b. Does the fact sheet describe the basis for allowing or disallowing in-stream dilution or a mixing zone?	X		

II.D. Water Quality-Based Effluent Limits – cont.	Yes	No	N/A
c. Does the fact sheet present WLA calculation procedures for all pollutants that were found to have "reasonable potential"?	X		
d. Does the fact sheet indicate that the "reasonable potential" and WLA calculations accounted for contributions from upstream sources (i.e., do calculations include ambient/background concentrations where data are available)?		X	
e. Does the permit contain numeric effluent limits for all pollutants for which "reasonable potential" was determined?	X		
5. Are all final WQBELs in the permit consistent with the justification and/or documentation provided in the fact sheet?	X		
6. For all final WQBELs, are BOTH long-term (e.g., average monthly) AND short-term (e.g., maximum daily, weekly average, instantaneous) effluent limits established?	X		
7. Are WQBELs expressed in the permit using appropriate units of measure (e.g., mass, concentration)?	X		
8. Does the fact sheet indicate that an "antidegradation" review was performed in accordance with the State's approved antidegradation policy?	X		

II.E. Monitoring and Reporting Requirements	Yes	No	N/A
1. Does the permit require at least annual monitoring for all limited parameters?	X		
a. If no, does the fact sheet indicate that the facility applied for and was granted a monitoring waiver, AND, does the permit specifically incorporate this waiver?			X
2. Does the permit identify the physical location where monitoring is to be performed for each outfall?	X		
3. Does the permit require testing for Whole Effluent Toxicity in accordance with the State's standard practices?		X	

II.F. Special Conditions	Yes	No	N/A
1. Does the permit require development and implementation of a Best Management Practices (BMP) plan or site-specific BMPs?		X	
a. If yes, does the permit adequately incorporate and require compliance with the BMPs?			X
2. If the permit contains compliance schedule(s), are they consistent with statutory and regulatory deadlines and requirements?			X
3. Are other special conditions (e.g., ambient sampling, mixing studies, TIE/TRE, BMPs, special studies) consistent with CWA and NPDES regulations?		X	

II.G. Standard Conditions	Yes	No	N/A
1. Does the **permit** contain all 40 CFR 122.41 standard conditions or the State equivalent (or more stringent) conditions?	X		

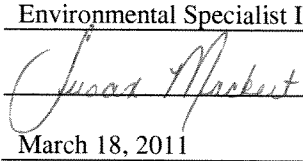
List of Standard Conditions – 40 CFR 122.41

Duty to comply	Property rights	Reporting Requirements
Duty to reapply	Duty to provide information	Planned change
Need to halt or reduce activity not a defense	Inspections and entry	Anticipated noncompliance
Duty to mitigate	Monitoring and records	Transfers
Proper O & M	Signatory requirement	Monitoring reports
Permit actions	Bypass	Compliance schedules
	Upset	24-Hour reporting
		Other non-compliance

2. Does the permit contain the additional standard condition (or the State equivalent or more stringent conditions) for existing non-municipal dischargers regarding pollutant notification levels [40 CFR 122.42(a)]?	X		

Part III. Signature Page

Based on a review of the data and other information submitted by the permit applicant, and the draft permit and other administrative records generated by the Department/Division and/or made available to the Department/Division, the information provided on this checklist is accurate and complete, to the best of my knowledge.

Name	Susan Mackert
Title	Environmental Specialist II Senior
Signature	
Date	March 18, 2011